bio-protocol Preprint

Not Peer Reviewed
Ask a question online

2.2. Nanoemulsion Preparation

Mandana Lotfi   Ali Akbar Moghadamnia

Updated date: Feb 23, 2022

An abbreviated version of this protocol was published in Journal of Oncology in Jun 2021

Protective Effect of Quercetin Nanoemulsion on 5-Fluorouracil-Induced Oral Mucositis in Mice

DOI: 10.1155/2021/5598230

Detailed protocol

A conventional emulsion was prepared using GMO (16% w/v) and Cremophor RH40 (4% w/v). Quercetin (0.25% w/v) was added under stirring to GMO and Cremophor RH40. The mixture was then dispersed in water under stirring for 30 min to form an emulsion. This emulsion was used for comparison. A nanoemulsion of Quercetin formed spontaneously in an oil phase of GMO, Cremophor RH40 and PEG 400 (1:8:1). Various amounts of Quercetin (10, 25, 50, 100, 250, 350, 500 and 750 mg) were added to 10 gram of oil phase. Quercetin, oil, surfactant and co-surfactant were stirred at 100 rpm for 2 h. Further sonication for 1 h using a bath sonicator was applied to complete the mixing process. To obtain nanoemulsion, deionized water was added to the oil phase at a ratio of 5:1 and stirred gently

How to cite:（Readers should cite both the Bio-protocol preprint and the original research article where this protocol was used）

1. Lotfi, M. and Moghadamnia, A. (2022). 2.2. Nanoemulsion Preparation. Bio-protocol Preprint. bio-protocol.org/prep1548.
2. Lotfi, M., Kazemi, S., Ebrahimpour, A., Shirafkan, F., Pirzadeh, M., Hosseini, M. and Moghadamnia, A. A.(2021). Protective Effect of Quercetin Nanoemulsion on 5-Fluorouracil-Induced Oral Mucositis in Mice. Journal of Oncology 0(0). DOI: 10.1155/2021/5598230

Copyright: Content may be subjected to copyright.